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Anal Pathologies during Pregnancy and Postpartum: Diagnosis and Treatment at the Kalaban Coro Referral Health Center

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Abstract: Pregnancy and childbirth are generally considered to be happy episodes in women's lives, these events can be marred by anal affections. The exact epidemiology of anal pathologies is difficult to define, due to the reluctance of patients to discuss their symptoms and to be examined. In most cases, their diagnosis is delayed and their management is inadequate or inappropriate. ***Aim***: To study anal pathologies during gravido-puerperality at the CS Ref of Kalaban Coro. ***Methods***: This was a single-center descriptive and analytical prospective study with prospective data survey at the CS Ref of Kalaban Coro. The study was conducted over a 9-month period from January 1 to September 30, 2019. ***Results***: During the study period, we identified 151 pregnant women. Of these pregnants, 88 or 58.27% had anal pathology. The different anal pathologies encountered were, hemorrhoidal disease (30.68%), anal fissure (30.68%) and anal incontinence (27.27%). The offending factors were dominated by constipation, a newborn weight > 3500g, a foetal expulsion time > 20 minutes. The clinic was conducted by interrogation and proctological examination. Clinical signs were anal pain, rectorrhagia, and pruritus. Treatment primarily includes the regulation of intestinal transit and topical topicals, analgesics, and those that improve blood circulation (Veinobiase, Daflon).

Keywords: ultrasound, uterovaginal agenesis, vaginoplasty

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INTRODUCTION

While pregnancy and childbirth are generally considered to be happy episodes in women's lives, these events can be marred by anal affections [1]. One-third of women develop an anal lesion after childbirth. These are essentially haemorrhoidal thrombosis (HT) and anal fissures (AF) that can be responsible for either major discomfort or significant pain [2]. Less than 50% of women are aware of these potential pathologies [3].

The exact epidemiology of anal pathologies is difficult to define due to patients' reluctance to discuss their symptoms and to be examined.

In France, a study carried out at the Bichat Hospital in 165 pregnant women in 2002 found a prevalence of 44.4% of anal pathologies on proctological examination [2].

Anal pathology is probably underestimated in Africa because of taboos and the use of traditional medicine [4]. Constipation is the main risk factor for these proctological pathologies [2]. The prevalence of constipation is increased during pregnancy, affecting about one-third of women [5].

Overall Objective: To study anal pathologies during gravido-puerperality at the CS Ref of Kalaban Coro.

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METHODOLOGY

This was a single-center prospective, descriptive and analytical study with prospective data survey that took place over a period of 9 months from January 1 to September 30, 2019.

The study included all pregnant women who had completed their pregnancy and postpartum follow-up at the Obstetrics and Gynaecology Unit of the CS Ref in Kalaban Coro.

Included in this study were all pregnant women who started their pregnancy follow-up in the first trimester and who gave birth in our department that they have anal pathologies or not.

Not included:

- All pregnant women who consulted for the first time after the first trimester of pregnancy.
- All pregnant women who consulted in the first trimester but did not agree to participate in the study.
- All pregnant patients followed up at another centre.
- All pregnant women who had an abortion, or who were referred to a university hospital during the study.

This was an exhaustive sampling of all pregnant women who met the inclusion criteria.

Our data were collected on the survey sheets from the obstetric: D oss; CPN Notebooks; Anesthesia Registers and Delivery Registers.

The variables studied were age, marital status, educational attainment, dietary habits, parity, transit disorders, history of proctological disease, duration of expulsion, route of delivery, newborn weight, perineal tears, instrumental delivery, clinical signs, diagnosis and treatment.

The methodology used for this study will be the search for anal pathologies in pregnant women. Each of them will benefit from an obstetric and proctological examination in the 1st, 3rd trimester of pregnancy and in the postpartum period. The data were entered into Excel and analysed on the software Epi info 7The statistical test used was the exact Fisher test and the MantelHaenszel test with a significance threshold set at 5%.

RESULTS

Impact

We identified 151 pregnant women out of 2425 patients who gave birth, an average of 269.44 deliveries per month, 2103 had given birth vaginally and 322 had given birth by caesarean section.

The 151 pregnant women were followed from the 1st trimester until 6 weeks postpartum. Of these pregnancies, 88 (58.27%) had anal pathology. The different anal pathologies encountered were: haemorrhoidal disease (30.68%), anal fissure (30.68%), anal incontinence (27.27%) and associated anal pathologies (11.36%).

Table I : Distribution of patients according to the time of diagnosis of anal pathology.

Pathologies Anal	**Timing of diagnosis**			**Total** n(%)
	First quarter n(%)	Third Quarter n(%)	Postpartum n(%)	
Anal fissure	3(3,4)	10(11,36)	14(15,9)	27(30,68)
Hemorrhoidal disease	3(3,4)	11(12,5)	13(14,77)	27(30,68)
Anal incontinence	6(6,81)	5(5,68)	13(14,77)	24(27,27)
Associated pathologies	0(0)	1(1,13)	9(10,22)	10(11,36)
Total	12(13,63)	27(30,68)	49(55,68)	88(100)

The multiple pathologies were: MH+FA(4), MH+FA+IA(3), MH+IA(2), FA+IA(1).

Table II : Frequency of different anal pathologies according to the periods of gravid and puerperal disease.

Periods	**Anal pathologies**		
	Hemorrhoidal disease	Anal fissure	Anal incontinence
First Trimester	3	3	6
Third Quarter	12	11	11
Postpartum	24	25	4
Total	39	39	41

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Clinical Aspects of Proctological Pathologies
Clinical Signs of Proctological Pathologies

Table III : Distribution of women according to functional signs

Functional Signs	Q1 (%)	Q3 (%)	Postpartum (%)
Constipation	46 (30,46)	78 (51,65)	28 (18,54)
Diarrhoea	6 (3,97)	9 (5,96)	22 (14,56)
Anal pain	4 (2,64)	15 (9,93)	30 (19,86)
Anal pruritus	1 (0,6)	6 (3,97)	6 (3,97)
Rectorrhagia	2 (1,32)	4 (2,64)	4 (2,64)
Anal oozing	0(00)	3 (1,98)	3 (1,98)
Gas leak	6 (3,97)	11 (7,28)	24 (15,89)

Table IIIV : Distribution of women according to the data from the proctological examination.

Data from the proctological examination	Q1 (%)	Q3 (%)	Postpartum (%)
Cracking wound	3 (1,98)	11 (7,28)	25 (16,55)
Episiotomy scar	35 (23,17)	35 (23,17)	39 (25,82)
Anal pain on digital rectal examination	5 (3,31)	23 (15,23)	42 (27,81)
Sphincter hypertonia	3 (1,98)	11 (7,28)	25 (16,55)
Sphincter hypotonia	6 (3,97)	11 (7,28)	20 (13,24)
Hemorrhagic digital rectal examination	2 (1,32)	4 (2,64)	4 (2,64)

Table V : Distribution of women according to the anal pathology found

Anal pathology found	Q1 (%)	Q3 (%)	Postpartum (%)
Hemorrhoidal disease	3 (25)	11 (33,33)	15 (25,42)
Anal fissure	3 (25)	10 (30,30)	16 (27,11)
Anal incontinence	6 (50)	11 (33,33)	18 (30,5)
Associated Anal Pathology	0(00)	1 (3,03)	10 (16,94)

Table VI *:* Univariate analysis of risk factors for hemorrhoidal disease.

Risk Factor	Hemorrhoidal disease		Total (%)	P
	Yes (%)	No (%)		
Constipation	9(32,14)	19 (67,86)	28 (100)	0,000
Diarrhoea	6 (27,23)	16 (72,73)	22 (100)	0 ,003
High Multiparity	1(6,25)	15(93,75)	16(100)	0,602
Primiparity	3(6,52)	43(93,48)	46(100)	0,353
Age >30 years	4(10,26)	35(89,74)	39(100)	0,937
BV Delivery	14(9,79)	129(90,21)	143(100)	0,803
Fetal Weight (2500-4000)	15(10,07)	134(89,93)	149(100)	0,636
Duration of the expelling period> 20min	2(18,18)	9(81,82)	11(100)	0,342

Factors that had a significant impact on the onset of HD were: constipation and diarrhea (P1=0.000 P2=0.003).

Table VII : Univariate analysis of risk factors for anal fissure.

Risk Factor	Anal fissure		Total (%)	P
	Yes (%)	No (%)		
Constipation	10(35,71)	18 (64,29)	28 (100)	0,000
Diarrhoea	4(18,18)	18(81,82)	22 (100)	0,211
High Multiparity	1(6,25)	15(93,75)	16(100)	0,550
Primiparity	7(15,22)	39(84,78)	46(100)	0,222
Age >30 years	10(25,64)	29(74,36)	39(100)	0,000
BV Delivery	16(11,19)	127(88,81)	143(100)	1,002
Fetal Weight (2500-4000)	16(10,74)	133(89,26)	149(100)	0,24
Duration of the expelling period>20min	0(00)	11(100)	11(100)	0,235

Factors that had a significant impact on the onset of AFib were: constipation and age over 30 years (P1=0.000 and P2=0.000).

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Table VIII : Univariate Analysis of Risk Factors for Anal Incontinence.

Risk Factor	Anal incontinence		Total (%)	P
	Yes (%)	No (%)		
Constipation	4(14,29)	24 (85,71)	28 (100)	0,183
Diarrhoea	10 (45,45)	12 (54,55)	22 (100)	0,000
High Multiparity	6(37,5)	10(62,50)	16(100)	0,000
Primiparity	7(15,22)	39(84,78)	46(100)	0,407
Age >30 years	9(23,08)	30(76,92)	39(100)	0,012
BV Delivery	18(12,59)	125(87,41)	143(100)	0,284
Fetal Weight (2500-4000)	18(12,08)	131(87,92)	149(100)	0,274
Duration of the expelling period>20min	6(54,55)	5(45,45)	11(100)	0,000

Factors that had a significant impact on the onset of AI were: diarrhea, high multiparity, age greater than 30 years, and length of the expulsive period greater than 20 minutes (P1=0.000; P2=0.000, P3=0.012 and P4=0.000).

Management of Anal Pathology

Table IX : Distribution of patients according to the management of anal pathology according to the periods of gravidope-puerperality

Medicaments	Periods of gravid and puerperium		
	First Quarter	Third Quarter	Postpartum
Veinotonics	3(1,98%)	12(7,94%)	24(15,89%)
Analgesic	5(3,31%)	23(15,23%)	26(17,21%)
Transit Regulator	52(34,43%)	87(57,61%)	50(33,11%)
Topical Topicals	2(1,32%)	12(7,94%)	24(15,89%)

COMMENTS AND DISCUSSIONS

Impacts

During our study, 88 women, or 58.27%, developed anal pathology. Our result is higher than that of Abramowitz *et al*., [2], who found 44.4% cases of anal pathology; and lower than that of Ferdinande K *et al*., [6], who found 68.5%.

This difference could be explained by the diversity of risk factors.

Among those who presented with anal pathology, haemorrhoidal diseases and anal fissures were the most frequent pathologies in our sample, 30.68% each, followed by anal incontinence (27.27%) and associated anal pathologies (11.36).

Risk Factors

In our series, the most common age group was between 20-30 years old, or 55.6%, with an average age of 25.59 years and extremes of 15 years and 43 years.

Our result is close to that of Poskus *et al*., [7], who found an average age of 28.7 years with extremes of 18 years and 45 years. In contrast, Ferdinande K *et al*., [6], found a mean age of 31 years with extremes of 20 years and 40 years. This can be explained by the young age of the African population in general and the Malian population in particular.

We identified that chronic constipation and diarrhoea were significantly associated with the onset of haemorrhoidal disease. Chronic constipation and age > 30 years were significantly associated with the onset of anal fissure. Diarrhea, high multiparity, age >30 years, and length of the expulsive period >20 minutes were significantly associated with the onset of anal incontinence.

Poskus T *et al*., [7], identified constipation, a birth weight > to 3800g, prolonged expulsion time > to 20 minutes and a personal history of anal pathologies as risk factors for the onset of anal disease in pregnant women. In the literature, other risk factors for the occurrence of haemorrhoidal disease, and anal fissure in per- or postpartum, are traumatic delivery (weight of the baby greater than 3.8 kg and tearing of the soft parts) or duration of expulsion of more than 20 minutes, and history of anal pathologies [2]. The main risk factors for postnatal anal incontinence are: advanced maternal age; high parity; maternal obesity; a prolonged second part of the work; performing a median episiotomy; obstetric lesion of the anal sphincter Forceps delivery [8].

Other pregnancy-related risk factors are increased intra-abdominal pressure, progesterone levels causing inhibition of smooth muscle cells in the venous network, increased uterus size which also compresses the inferior vena cava and pelvic venous network. Blood volume increases during pregnancy by 25-40% causing an increase in the circulating venous network [9].

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Clinical Aspects

Hemorrhoidal Disease

Anal pain was the main symptom found. Its frequency in our study was 97.43%. It was most commonly found in the study by Poskus T *et al*., [7], who recorded 98.3% anal pain in patients.

Pruritus and oozing usually occur secondary to hemorrhoidal prolapse [10]. They were found in 23.07% of our patients. Our result is lower than that reported by Poskus T *et al*., [7], 74%. This difference could be explained by the sample size.

The rectorrhage in our study was 15.38%. It varies in amount and appears during or after bowel movements [11]. Our result is lower than that reported by Ollende C *et al*., [1], in 2010 89.5%. This could be explained by the fact that rectorrhages are most often obscured due to the use of traditional latrines in our context.

Anal Fissure

Anal pain was more frequently found in our study at 100%; as well as in those of Siproudhis et alen France, Keita CO *et al*., in Mali [12], with 100%.

Rectorrhagy was frequently found in our study 13.15% as well as in those ofSiproudhis *et al*., [13], and Keita CO *et al*., [12], with a rate of 85% to 71.5% respectively.

Anal discharge and pruritus less common than anal pain were found in 23.68% of patients. It is most often a serohematic discharge**.** For some, anal pruritus is usually the beginning of healing of the fissure [3]. For others, the serous secretion from the anal fissure causes oozing resulting in a moist anus and anal pruritus [13].

Anal Incontinence

In the female population, it has been proven that less than 20% of women affected by AI symptoms talk to their doctor**.**

All cases of anal incontinence were gas. We have not noted any cases of AI in liquid and solid materials. In the literature [14], these are most often gas leaks with an impact that can be very disabling in professional life, leisure or intimate relationships. In 1 to 2% of cases, it is fluid stool loss with an even greater impact on quality of life.

Pick-Up

Hemorrhoidal Disease

During our study, all patients with hemorrhoidal disease were placed on intestinal transit regulators. We agree with other authors Abramowitz Let al**,** Holzheimer RG *et al*., [15], that the regularization of transit represents the most important element in the treatment of hemorrhoidal pathology.

During our study, the rate of symptomatic amendment was considerable after transit regularization.

HolzheimerRG [15], found an improvement in symptomatology in 47% after regularization of transit and a cessation of rectorrhagia in 50%.

In addition, other drugs were used in the department as adjunctive treatments, including those improving venous circulation (veinotonics, and phlebotonics) per os, topicals (ointments and suppositories) and analgesics.

Dietary recommendations have been given such as avoiding spices, continuous sitting (long car trips) and overeating, recommending a restrictive diet in case of overweight, general hygiene.

None of our patients received instrumental treatment (botulinum toxin injection) or surgical treatment (hemorrhoidectomy) during our study. In the literature, instrumental treatments and surgery will have to be re-discussed at a distance from childbirth according to the usual indications [9].

Anal Fissure

During our study, all patients with an anal fissure were placed on intestinal transit regulators.

Other medications have been used as treatment finally to lubricate the anal canal, heal the anal fissure and calm the pain (topical local suppository cream).

In the literature, the management of AF in pregnant women consists of a treatment combining a regulation of intestinal transit (it is almost exclusively constipation to be treated with osmotic or oily laxatives or mucilage) and lubricators of the anal canal (topical local suppository and ointment) [16].

Anal Incontinence

Of the 41 cases of anal incontinence during the entire study, 74.3% were put on laxatives.

The first-line treatment of AI combines specific perineal rehabilitation of the anus with dietary measures and drug prescriptions to regulate intestinal transit Damon H *et al*., [17].

CONCLUSION

Haemorrhoidal disease, anal fissure and anal incontinence are quite common pathologies during pregnancy and postpartum, with a predilection for young adults. Its diagnosis is essentially clinical. The discovery of a wound or mass between the radiated folds of the anus is the most important part of the examination. One of the common risk factors is constipation during pregnancy.

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A proctological examination and hygienic and dietary advice will make it possible to detect these pathologies and thus reduce its frequency.

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